

## **Station KFMB-DT • TCD Channel D08 • San Diego, California**

### **Statement of Hammett & Edison, Inc., Consulting Engineers**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Midwest Television, Inc., licensee of Stations KFMB-TV and KFMB-DT, Channels N08 and D55, San Diego, California, to prepare an engineering statement in support of its comments to the Commission's Seventh Further Notice of Proposed Rule Making in MB Docket No. 87-268.

### **Background**

In the Seventh Further Notice of Proposed Rule Making (7FNPRM) in MB Docket No. 87-268, the Commission proposed DTV Channel 8 as the post-transition Channel for KFMB-DT, which presently operates on out-of-core Channel D55. The Commission specified tentative operating parameters on Channel D08 of 5.417 kilowatts ERP (DA), at 208 meters HAAT.

When Midwest Television completed its pre-election certification (FCC Form 381), it mistakenly certified that it would operate KFMB-DT at "maximized" facilities post-transition. "Maximized" here is a misnomer, since the specified facility covers an area far smaller than its analog facility. Because it would allow coverage comparable to its analog facility and would allow use of its existing top-mounted Channel 8 transmitting antenna, Midwest seeks to change its election to "replication."

In the 7FNPRM, the Commission requested that licensees "comment on any inaccuracies or discrepancies..."\* Although the mistaken facility certification was the fault of the licensee, and not the Commission, it is believed that the public interest would be served by allowing this change now, rather than requiring the licensee to file a petition to amend the DTV Table at a later time. By making this adjustment in channel now, KFMB can better ensure that none of its present analog viewers will be disenfranchised as a result of operating digitally on Channel 8 at a power level insufficient to replicate its analog service area. Additionally, KFMB and the Commission will be spared the burden of an unnecessary rule-making petition.

### **Replication Power Level for KFMB-DT on Channel 8**

In determining appropriate facilities for post-transition operation, the Commission has explained that it "calculated values for the ERP and the directional antenna radiation pattern that would allow a station to match its coverage area based on its certified facilities or replication facilities, as appropriate. Calculations of new ERP and antenna patterns for stations' elected channels were performed in the same manner as those performed by the Commission to match DTV facilities to analog facilities; *see*

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\* ¶16



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*Sixth Report and Order*, 12 FCC Rcd at 14693, app. B.” [7FNPRM para 21.] We calculate this power level to be 14.9 kilowatts with an appropriate directional antenna pattern.

Since KFMB desires to continue to use its non-directional top-mounted antenna for DTV post-transition, we also calculated the equivalent non-directional ERP, which is 11.1 kW.

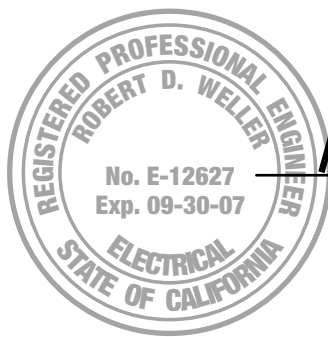
### Replication Power Level Does Not Affect other TCDs

Post-transition channel conflict studies were conducted assuming KFMB-DT to be operating on Channel D08 directionally (using a “replication” directional antenna pattern derived in accordance with Appendix B of the 6th Report and Order to MB Docket 87-268) at 14.9 kilowatts and omnidirectionally at 11.1 kW ERP. The only stations to which any interference would be caused are KABC-DT, Channel D07 (TCD) and KCAL-DT, Channel D09 (TCD), both licensed to Los Angeles. As shown in Figures 1 and 2, attached, post-transition channel conflict studies show that the additional interference from KFMB-DT as Channel D08 at 14.9 kW (DA) and at 11.1 kW ERP do not exceed the Commission’s 0.1% allowance.<sup>†</sup>

### List of Figures

In carrying out these engineering studies, the following attached figure was prepared under my direct supervision:

1. Channel selection study for KFMB-DT as D08 at 14.9 kW ERP (DA, Maximum)
2. Channel selection study for KFMB-DT as D08 at 11.1 kW ERP omnidirectional



/s/ **Robert D. Weller**

Robert D. Weller, P.E.

January 22, 2007

<sup>†</sup> Use of terrain profiles sampled at 10 points per kilometer, as permitted by published Commission Policy (Public Notice No. 84889, August 10, 1998), gives more accurate results and consideration using such finer-resolution parameters is requested.



# Station KFMB-DT • TCD Channel D08 • San Diego, California

## Results of OET-69 Channel Conflict Study KFMB-DT at 14.9 kW ERP, Directional Antenna

OET-69 Interference Analysis, 2000 Census  
tvstudy v3.2.12

Channel-election conflict study, in-core only, DTV protection only

Before case parameters:  
(no record)

After case parameters:

	--Modified-----	--Original-----
Station:	D08 KFMB-TV LIC	N08z KFMB-TV LIC
City:	SAN DIEGO, CA	SAN DIEGO, CA
Facility ID:	42122	42122
Coordinates:	N 32-50-17.0 W 117-14-57.0	N 32-50-17.0 W 117-14-57.0
Height AMSL:	309.0 m	309.0 m
Maximum ERP:	14.9 kW	316 kW
Azimuth pattern:	replication	omnidirectional
Orientation:	0.0	
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	36.0 dBu	56.0 dBu

Protected station	Base Pop	Before		After		
		IX Change	%Base	IX Change	%Base	%Chn
D07 KABC-TV TCD LOS ANGELES, CA	15,547,247	-8,505	-0.1	5,563	0.0	0.09

Interfering station	Before		After	
	Total IX	Unique IX	Total IX	Unique IX
D08 KFMB-TV LIC* SAN DIEGO, CA	0	0	21,683	14,068
D07 KAIL LIC FRESNO, CA	368	368	368	368
D07 KLAS-TV LIC LAS VEGAS, NV	2	2	2	2
N07+ KVEY LIC EL CENTRO, CA	22,936	22,936	22,936	15,321
N07+A K07TA CP SANTA MARIA, CA	0	0	0	0
N07-A KASC-CA LIC ATASCADERO, CA	0	0	0	0
N08+A K08MM LIC BAKERSFIELD, CA	0	0	0	0



# Station KFMB-DT • TCD Channel D08 • San Diego, California

## Results of OET-69 Channel Conflict Study KFMB-DT at 14.9 kW ERP, Directional Antenna

Protected station					Before		After		
					Base Pop	IX Change	%Base	IX Change	%Base %Chng
D09	KCAL-TV TCD	LOS ANGELES, CA	15,438,187			11,133	0.1	11,890	0.1 0.00

Interfering station				Before		After	
				Total IX	Unique IX	Total IX	Unique IX
D08	KFMB-TV LIC*	SAN DIEGO, CA		0	0	757	757
D09	KFSN-TV LIC	FRESNO, CA		0	0	0	0
D09	KVVU-TV LIC	HENDERSON, NV		0	0	0	0
D10	KERO-TV LIC	BAKERSFIELD, CA		0	0	0	0
N08+A	K08MM LIC	BAKERSFIELD, CA		0	0	0	0
N09-A	K09UF CP	MORRO BAY, CA		0	0	0	0

\* Record parameters modified

### Note:

The results of the OET-69 algorithm are dependent on the use of computer databases and complex software algorithms, which may vary between computer platforms and installations. Also, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods changes from time to time. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.



# Station KFMB-DT • TCD Channel D08 • San Diego, California

## Results of OET-69 Channel Conflict Study KFMB-DT at 11.1 kW ERP, Non-Directional

OET-69 Interference Analysis, 2000 Census  
tvstudy v3.2.12

Channel-election conflict study, in-core only, DTV protection only

Before case parameters:  
(same as original below)

After case parameters:

	--Modified-----	--Original-----
Station:	D08 KFMB-TV TCD	D08 KFMB-TV TCD
City:	SAN DIEGO, CA	SAN DIEGO, CA
Facility ID:	42122	42122
Coordinates:	N 32-50-16.8	N 32-50-16.0
	W 117-14-56.9	W 117-14-56.0
Height AMSL:	309.0 m	290.0 m
Maximum ERP:	11.1 kW	5.42 kW
Azimuth pattern:	omnidirectional	D55-CASAN_DIEGO_08
Orientation:		0.0
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	36.0 dBu	36.0 dBu

				Before		After			
Protected station				Base Pop	IX Change	%Base	IX Change	%Base	%Chng
D07	KABC-TV TCD	LOS ANGELES, CA	15,547,247	-4,121	-0.0	5,563	0.0	0.06	

			Before		After	
Interfering station			Total IX	Unique IX	Total IX	Unique IX
D08	KFMB-TV TCD*	SAN DIEGO, CA	5,799	4,384	21,683	14,068
D07	KAIL LIC	FRESNO, CA	368	368	368	368
D07	KLAS-TV LIC	LAS VEGAS, NV	2	2	2	2
N07+	KVYE LIC	EL CENTRO, CA	22,936	21,521	22,936	15,321
N07+A	K07TA CP	SANTA MARIA, CA	0	0	0	0
N07-A	KASC-CA LIC	ATASCADERO, CA	0	0	0	0
N08+A	K08MM LIC	BAKERSFIELD, CA	0	0	0	0



# Station KFMB-DT • TCD Channel D08 • San Diego, California

## Results of OET-69 Channel Conflict Study KFMB-DT at 11.1 kW ERP, Non-Directional

Protected station				Before			After		
				Base Pop	IX Change	%Base	IX Change	%Base	%Chng
D09	KCAL-TV TCD	LOS ANGELES, CA		15,438,187	11,855	0.1	11,890	0.1	0.00

Interfering station			Before		After		
			Total IX	Unique IX	Total IX	Unique IX	
D08	KFMB-TV TCD*	SAN DIEGO, CA	722	722	757	757	
D09	KFSN-TV LIC	FRESNO, CA	0	0	0	0	
D09	KVVU-TV LIC	HENDERSON, NV	0	0	0	0	
D10	KERO-TV LIC	BAKERSFIELD, CA	0	0	0	0	
N08+A	K08MM LIC	BAKERSFIELD, CA	0	0	0	0	
N09-A	K09UF CP	MORRO BAY, CA	0	0	0	0	

\* Record parameters modified

### Note:

The results of the OET-69 algorithm are dependent on the use of computer databases and complex software algorithms, which may vary between computer platforms and installations. Also, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods changes from time to time. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.

